

## ABSTRACT OF THE DISCLOSURE

TMS  
AI

A magnetic bearing device comprises a pair of  
electromagnets holding a rotary body at opposite sides  
thereof in the direction of each of control axes, a  
5 detector for detecting the position of the rotary body,  
and an electromagnet controller having an integral  
operation unit for controlling the electromagnets based  
on the result of detection of the position. The  
electromagnet controller sets as a target levitated  
10 position of the rotary body the position of the rotary  
body corresponding to the median of an integral output  
of the integral operation unit when the rotary body is  
magnetically levitated in the vicinity of one of limit  
positions in the direction of the control axis  
15 determined by protective bearings and an integral output  
of the unit when the rotary body is magnetically  
levitated in the vicinity of the other limit position.

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